

L Number	Hits	Search Text	DB	Time stamp
1	286	placental adj protein\$	USPAT; US-PGPUB; EPO; JPO; DERWENT	2003/10/09 12:06
2	5446	pp-13 or pp13 or pp adj "13"	USPAT; US-PGPUB; EPO; JPO; DERWENT	2003/10/09 12:06
4	47518	monoclonal adj antibod?	USPAT; US-PGPUB; EPO; JPO; DERWENT	2003/10/09 12:12
5	1	((placental adj protein\$) and (pp-13 or pp13 or pp adj "13")) and (monoclonal adj antibod?)	USPAT; US-PGPUB; EPO; JPO; DERWENT	2003/10/09 12:06
3	11	(placental adj protein\$) and (pp-13 or pp13 or pp adj "13")	USPAT; US-PGPUB; EPO; JPO; DERWENT	2003/10/09 12:15
6	218	(antibody or antibodies or antiserum) and (placental adj protein\$)	USPAT; US-PGPUB; EPO; JPO; DERWENT	2003/10/09 12:13
7	166192	antibody or antibodies or antiserum	USPAT; US-PGPUB; EPO; JPO; DERWENT	2003/10/09 12:14
8	218	(placental adj protein\$) and (antibody or antibodies or antiserum)	USPAT; US-PGPUB; EPO; JPO; DERWENT	2003/10/09 12:13
9	65360	(antibody or antibodies or antiserum) near (monospecific or monoclonal)	USPAT; US-PGPUB; EPO; JPO; DERWENT	2003/10/09 12:14
10	168	((antibody or antibodies or antiserum) near (monospecific or monoclonal)) and (placental adj protein\$)	USPAT; US-PGPUB; EPO; JPO; DERWENT	2003/10/09 12:14
11	3	((placental adj protein\$) and (pp-13 or pp13 or pp adj "13")) and ((antibody or antibodies or antiserum) near (monospecific or monoclonal))	USPAT; US-PGPUB; EPO; JPO; DERWENT	2003/10/09 12:15

09/937,706

(FILE 'HOME' ENTERED AT 11:39:50 ON 09 OCT 2003)

FILE 'BIOSIS, MEDLINE, CAPLUS, WPIDS' ENTERED AT 11:39:56 ON 09 OCT 2003

```
      E PALTIELI Y/AU
L1      53 S E3, E4, E6
      E RABINOVITCH L/AU
L2      43 S E3, E6
L3      37 DUP REM L1 (16 DUPLICATES REMOVED)
L4      29 DUP REM L2 (14 DUPLICATES REMOVED)
L5      65 S L3 OR L4
L9      58 S PP-13
L10     58 S PP 13
L11     58 S L9 AND L10
L12     43 DUP REM L11 (15 DUPLICATES REMOVED)
L13      1 S L12 AND L5
L14     370670 S MONOCLONAL ANTIBOD?
L15      1 S L12 AND L14
L16     1910 S PLACENTAL PROTEIN
L17     162 S PLACENTAL PROTEIN# AND 13
L18     12 S L17 AND L14
L19      5 DUP REM L18 (7 DUPLICATES REMOVED)
```

FILE 'BIOSIS, MEDLINE, CAPLUS, WPIDS' ENTERED AT 11:59:16 ON 09 OCT 2003

=>

10/9/03

09/824,587

L19 ANSWER 5 OF 5 CAPLUS COPYRIGHT 2003 ACS on STN
AN 1990:73417 CAPLUS
DN 112:73417
TI Methods, antibodies, and kits for immunochemical determination of normal
or abnormal pregnancy
IN Teng, Nelson N. H.; Senyei, Andrew E.
PA Aspen Diagnostics, Inc., USA
SO Eur. Pat. Appl., 35 pp.
CODEN: EPXXDW
DT Patent
LA English
FAN.CNT 6

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
	-----	----	-----	-----	-----
PI	EP 316919	A2	19890524	EP 1988-119147	19881117
	EP 316919	A3	19900816		
	EP 316919	B1	19950607		
	R: AT, BE, CH, DE, ES, FR, GB, GR, IT, LI, LU, NL, SE				
	US 5096830	A	19920317	US 1988-244969	19880915
PRAI	US 1987-121893		19871117		
	US 1987-121894		19871117		
	US 1987-121895		19871117		
	US 1987-121899		19871117		
	US 1987-121900		19871117		
	US 1987-121902		19871117		
	US 1988-244969		19880915		

7/25/03

09/937,706

L25 ANSWER 1 OF 10 CAPLUS COPYRIGHT 2003 ACS on STN
TI Human Pur .alpha. protein 13.31 and its cDNA and therapeutic use thereof
IN Mao, Yumin; Xie, Yi
SO Faming Zhuanli Shenqing Gongkai Shuomingshu, 34 pp.
CODEN: CNXXEV
AB The invention provides cDNA sequences of a novel human Pur .alpha. protein 13.31 (mol. wt. in kDa, also called **PP13.31**) cloned from human embryonic brain. The invention also relates to constructing the cloned gene expression vectors to prep. its recombinant protein using E. coli or eukaryotic cells. Methods of expressing and prepg. the above recombinant protein and its **antibody** are described. The mRNA expression profile in various normal or tumor cell lines and tissues is also provided. The invention further relates to applications of related gene or protein products for the treatment of related diseases, such as cancer, blood diseases, HIV infection, immune diseases and inflammation. Methods for screening for related analogs, agonists, inhibitors and antagonists to be used as therapeutic drugs are also described.

L25 ANSWER 2 OF 10 CAPLUS COPYRIGHT 2003 ACS on STN
TI Protein and cDNA sequences of novel human proteins having antitumor activity and therapeutic uses thereof
IN Gu, Jianren; Yang, Shengli
SO Faming Zhuanli Shenqing Gongkai Shuomingshu, 25 pp.
CODEN: CNXXEV
AB The invention provides the protein and cDNA sequences of novel human proteins having antitumor activity cloned from human placenta by PCR with specific primers. The invention relates to the inhibitory effects of 5 novel human proteins (biopanned from human placental cDNA library) on colony formation of liver cell line-7721.

L25 ANSWER 3 OF 10 CAPLUS COPYRIGHT 2003 ACS on STN DUPLICATE 1
TI **Antibodies** to placental protein 13
IN Paltieli, Yoav; Rabinovitch, Lev
SO PCT Int. Appl., 40 pp.
CODEN: PIXXD2
AB A **monoclonal antibody** (Mab) capable of binding Placental Protein 13 (**PP-13**) is disclosed. Also disclosed are hybridoma clones producing the Mab, an immunoassay using the Mab for measuring the level of **PP-13** in a biol. fluid, and a kit for measuring the level of **PP-13** in a biol. fluid. The **monoclonal antibodies** and immunoassays are useful for early stage detection of pregnancy-related disorders such as intrauterine growth retardation, preeclampsia and preterm delivery.

L25 ANSWER 4 OF 10 WPIDS COPYRIGHT 2003 THOMSON DERWENT on STN
TI New placental protein, useful for diagnosing pregnancy-related complications.
IN ADMON, A; MANDEL, S; PALTIELI, Y; SLOTKY, R; MANDELI, S; MENDEL, S

10/9/03

09/937,706

AB WO 9938970 A UPAB: 19990928

NOVELTY - Placental protein 13 (**PP13**) (I) is new, and comprises the sequence of 139 amino acids given in the specification.

DETAILED DESCRIPTION - A protein selected from:

(a) **PP13**;

(b) a polypeptide having a sequence of amino acids included in **PP13** and which binds to **antibodies** which specifically to **PP13**;

(c) a protein or polypeptide of (a) or (b) in which one or more amino acids have been added, deleted or replaced without reducing the ability of the protein or polypeptide to bind **antibodies** which specifically bind to **PP13**; and

(d) a protein or polypeptide having an amino acid sequence including the amino acid sequence of (a), (b) or (c).

INDEPENDENT CLAIMS are also included for the following:

(1) a DNA molecule (II) encoding (I);

(2) a DNA molecule (III) capable of hybridizing to (II);

(3) **antibodies** (IV) against (I);

(4) a method of screening for pregnancy-related complications comprising:

(a) determining the level of (I) in a serum sample from a pregnant woman; and

(b) comparing this level with predetermined normal levels for woman at the same gestational stage, a difference indicating a pregnancy-related complication;

(5) production of (I); and

(6) a kit for diagnosing pregnancy-related complications, comprising:

(a) (IV); and

(b) labeled (I) and standard dilutions of (I).

ACTIVITY - None given.

MECHANISM OF ACTION - None given.

USE - Detection of (I) in the serum from a pregnant woman in an immunoassay using (IV) may be used to diagnose intrauterine growth retardation, preeclampsia and preterm delivery (claimed).

Dwg.0/3

L25 ANSWER 5 OF 10 CAPLUS COPYRIGHT 2003 ACS on STN DUPLICATE 2

TI Immunoassay for the detection of pregnancy disorders using radioactive iodine-labelled protein **pp13**

IN Silberman, Michael

SO Israeli, 26 pp.

CODEN: ISXXAQ

AB The title immunoassay uses radiolabeled protein **PP-13**

(a nonhormonal placental sol. protein) and an anti **PP-13 antibody**, as well as a 2nd (ppting.) **antibody**

. The method detects placental damage at a relatively early stage of pregnancy. Using the method of the invention, **PP-13** concns. were detd. for adult males, adult nonpregnant females, adult asymptomatic pregnant females, and adult symptomatic pregnant females.

10/9/03

09/937,706

Concn. of **PP-13** for pregnant females differed from the group of males and nonpregnant females, and **PP-13** concn. was substantially higher for symptomatic pregnant females than for asymptomatic pregnant females.

L25 ANSWER 6 OF 10 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC. on STN
DUPLICATE 3

TI CONCENTRATION OF PLACENTAL PROTEIN 19 IN BODY FLUID AND PLACENTAL
TISSUES.

AU TAKAYAMA M; ISAKA K; SUZUKI Y; FUNAYAMA H; SUZUKI Y; AKIYA K; BOHN H
SO ARCH GYNECOL OBSTET, (1990) 247 (2), 83-94.
CODEN: AGOBEJ. ISSN: 0932-0067.

AB Placental protein 19 (PP19) is one of the new **placental tissue proteins** identified in extracts from human term placenta by Bohn and Winkler. We measured the PP19 concentration in body fluids and placental tissue by radioimmunoassay; the minimum detectable dose of standard was 1.5 ng/ml. Although ethylene diamine tetraacetic acid

(EDTA-2K) inhibited the immunoreaction between PP19 (225/242) and anti-PP19 **antibody** (632 ZA), the PP19 concentration did not differ between serum and heparin and sodium citrate plasmas. The serum PP19 concentration was increased by hemolysis. In blood cell fractions separated by the Ficoll-Paque/Macrodex method, polymorphonuclear

leukocyte fraction contained the highest PP19 concentration. The circulating serum PP19 concentration was 4.5 \pm 1.1 ng/ml (mean \pm standard deviation) in the proliferative phase (n = 8) and 5.1 \pm 1.6 ng/ml in the

secretory phase (n = 7) for nonpregnant women, and 4.6 \pm 2.2 ng/ml from men (n = 12). Seminal plasma (n = 8) contained 212.2 \pm 99.7 ng/ml. The maternal serum PP19 concentration in 291 normal pregnancies increased from 6.2 ng/ml (median) at 6-7 weeks of gestation to 34.1 ng/ml at 38-39 weeks.

The mean PP19 concentration was higher in amniotic fluid and retroplacental blood, but lower in umbilical cord blood than that in circulating maternal

serum. In hydatidiform mole, vesicular fluid contained high PP19 concentration (1154.6 \pm 659.5 ng/ml), although these maternal serum concentration was not statistically higher than normal range. The chorionic villous trophoblast contained more PP19 than decidua, chorion, and amnion. These results suggest that PP19 has an extraplacental source, even though the chorionic villous trophoblast may be the main source throughout pregnancy.

L25 ANSWER 7 OF 10 CAPLUS COPYRIGHT 2003 ACS on STN

TI Methods, **antibodies**, and kits for immunochemical determination of normal or abnormal pregnancy

IN Teng, Nelson N. H.; Senyei, Andrew E.
SO Eur. Pat. Appl., 35 pp.

CODEN: EPXXDW

AB Methods, (un)labeled polyclonal and **monoclonal antibody** reagents, and kits are provided for the detection of normal or ectopic pregnancy, ex vivo products of conception, or increased risk of preterm

10/9/03

labor and membrane rupture. Individual methods rely on the detn. of an unrestricted pregnancy antigen or the presence or absence of a fetal restricted antigen in a sample taken from the cervical canal, cervical os, or posterior fornix, or a sample expelled or removed from the uterus. Immunoassay procedures for the above detns. are described. The pregnancy antigen may be human chorionic gonadotropin, somatostatin, .alpha.-fetoprotein, etc. Pregnancy can be detd. in the 1st trimester or in the 1st 20 wk. Swab samples collected in the vicinity of the cervical os were immersed in a diluent contg. 0.05M Tris-HCl (pH 7.4), 0.15M NaCl, 0.02% NaN₃, 1% bovine serum albumin, 500 kallikrein units/mL aprotinin, 1 mM phenylmethylsulfonyl fluoride, and 5 mM EDTA. Microtiter plate wells were reacted 1st with goat F(ab')₂ anti-mouse IgG **antibody**, then with mouse monoclonal anti-(fetal fibronectin) ascites (prodn. and purifn. of **monoclonal antibody** given). A 100 .mu.L portion of each sample, std., pos. control (amniotic fluid of known fibronectin concn.), and neg. control (sample diluent) was placed in sep. wells and incubated for 2 h at room temp. Following washing, each well was further incubated with alk. phosphatase-conjugated goat anti-human fibronectin, then with enzyme substrate; developed color was read at 405 nm. A std. curve was constructed by correlating increasing reaction rate with increasing fibronectin concn. in the stds. Samples obtained before wk 20 of pregnancy which demonstrate significant fetal fibronectin in the test sample indicate normal uterine pregnancy; samples in which significant amts. of fetal fibronectin are absent indicate that normal uterine pregnancy is not present.

L25 ANSWER 8 OF 10 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC. on STN DUPLICATE 4

TI COMPARATIVE STUDY OF PLACENTAL PROTEIN 19 HUMAN CHORIONIC GONADOTROPIN AND

PREGNANCY-SPECIFIC BETA-1 GLYCOPROTEIN AS IMMUNOHISTOCHEMICAL MARKERS FOR EXTRAVILLOUS TROPHOBLAST IN PREGNANCY AND TROPHOBLASTIC DISEASE.

AU TAKAYAMA M; ISAKA K; SUZUKI Y; FUNAYAMA H; SUZUKI Y; AKIYA K; BOHN H
SO HISTOCHEMISTRY, (1989) 93 (2), 167-174.
CODEN: HCMYAL. ISSN: 0301-5564.

AB PP19, a new **placental tissue protein**, has .alpha.1-.beta.1 electrophoretic mobility, a molecular weight of 36,500 and 3.9% carbohydrate. To study immunocytochemical PP19 localization in extravillous trophoblast, we obtained formalin-fixed specimens from extravillous tubal pregnancy at gestational weeks (GW) 7-9 (12 blocks); four early intrauterine pregnancies at GW 7-13 (12 blocks); four late pregnancies at GW 28-38 complicated with intramural uterine myoma, placenta increta and abruptio placenta (8 blocks); four invasive complete moles (9 blocks); and seven primary and metastatic gestational choriocarcinomas (12 blocks). Immunohistochemical staining was done for PP19, pregnancy-specific .beta.1-glycoprotein (SP1) and human chorionic gonadotrophin (hCG) using the indirect-labeled **antibody** method [purified PP19 (Lot no. 225/242) and **antibody** against PP19 (Lot no. 6322A) prepared by H. Bohn, **antibodies** against hCG (Behringwerke, Marburg, FRG) and SP1 (Dakopatts, Copenhagen, Denmark)].

In

both early and late intrauterine pregnancies, the extravillous syncytiotrophoblastic cell (XST) showed positive staining for hCG and SP1 in the cytoplasm, as well as for PP19, which stained more intensively in the nucleus than in the cytoplasm. The three proteins were not seen in the
 the
 column
 and shell. The interstitial cytotrophoblast-like cell (ICT), which infiltrated into the decidua and myometrium, and their blood vessels, was immunoreactively positive for PP19 but negative for hCG and SP1 with the exception of SP1-positive ICT in the myometrium in late pregnancy. XST
 and
 ICT in the endosalpinx of tubal pregnancy stained for all three proteins. In invasive complete mole, XST stained for the three proteins, but ICT infiltrating into the decidua and myometrium stained more intensively for PP19 than for either hCG or SP1. XCT did not stain for the three proteins.
 Staining for the three proteins in gestational choriocarcinoma resembled that in invasive mole. By PP19 staining, XST and ICT infiltrating into surrounding tissue were clearly distinguishable from other cells of similar shape. PP19 staining thus can be a useful histochemical marker in assessing the cell viability of the trophoblastic tumor after chemotherapy.

L25 ANSWER 9 OF 10 CAPLUS COPYRIGHT 2003 ACS on STN DUPLICATE 5
 TI Method for diagnosis and monitoring of pregnancy disorders by radioimmunological measurement of a soluble placental protein in biological fluids
 IN Silberman, Michael
 SO Eur. Pat. Appl., 14 pp.
 CODEN: EPXXDW
 AB A double **antibody** RIA for diagnosing and monitoring pregnancy disorders by measurement of a sol. placental protein present in biol. fluids is described. The protein measured is characterized by electrophoretic mobility in the range specific for albumin, pI 4.6-4.9, mol. wt. <35,000, and carbohydrate content <1%. ¹²⁵I-labeled placental protein **PP-13** was prepd. by a std. lactoperoxidase method. The 1st **antibody** in the RIA was rabbit anti-**PP-13** antiserum; the 2nd **antibody** was developed in donkey serum. Reaction of serum samples and the radiolabeled antigen-**antibody** complex was carried out for 18 h, followed by a 10 min incubation with the 2nd **antibody**. Radioactivity in the centrifuged, washed ppts. was detd. Serum levels of endogenous **PP-13** in adult-population samples of males, nonpregnant females, asymptomatic pregnant females, and symptomatic pregnant females were
 0.58,
 0.61, 0.82, and 0.95 ng/mL, resp.

L25 ANSWER 10 OF 10 CAPLUS COPYRIGHT 2003 ACS on STN DUPLICATE 6
 TI Placental protein (**PP13**), its purification, characteristics, and use
 IN Bohn, Hans; Kraus, Walter
 SO Ger. Offen., 16 pp.

09/937,706

CODEN: GWXXBX

AB The title protein was purified from human placenta ext. by Rivanol extn., (NH₄)₂SO₄ extn., gel chromatog. on Sephadex G-150, chromatog. on DEAE-cellulose, and immunoadsorption. The characteristics of the title protein are given (mol. wt., carbohydrate content, electrophoretic mobility, etc.) and its suggested use is for antiserum prepn.

10/9/03